

Mr. Larry Meyer
Delta Faucet Company
P.O. Box 47
Greensburg, IN 47240

Re: 031-12463
First Minor Permit Revision to
MSOP 031-11706-00007

Dear Mr. Meyer:

Delta Faucet Company was issued a minor source operating permit on May 25, 2000 for the chrome faucet electroplating source. A letter requesting a revision to this permit was received on October 12, 2000. Pursuant to the provisions of 326 IAC 2-6.1-6 a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document.

This revision consists of the following:

- (a) Approval to operate of the following emission units and pollution control devices that were in existence when the MSOP was issued but were not included in the review:
 - (1) One (1) rack strip line, identified as 1038, consisting of two (2) rack strip tanks, four (4) rinse tanks and one (1) hot rinse tank, equipped with a wet scrubber and exhausting to stack 3230, maximum capacity: 2.05 pounds of alkaline cleaner per hour, 0.09 pounds of aqua ammonia per hour, 0.06 pounds of Acetic Acid per hour, and 0.49 pounds of Nitric Acid per hour.
 - (2) One (1) powder spray booth, identified as 1599, equipped with a baghouse and exhausting through stack 1599, capacity: 16 pounds of powder per hour and 34 pounds of parts coated per hour.
 - (3) One (1) WWT sludge dryer, identified as 2209, equipped with a wet scrubber.
 - (4) One (1) maintenance welding booth, identified as Booth 11-1, exhausting to stack 11-1, capacity: 0.2 pound of Oxyacetylene welding wire per hour.
 - (5) One (1) tool room welding booth, exhausting to stack 1799, capacity: 0.2 pound of Oxyacetylene welding wire per hour.
 - (6) Two (2) lab hoods.
 - (7) One (1) inductively coupled plasma (ICP) unit.
- (b) The one (1) decorative chromium electroplating tank, identified as T21, using a hexavalent chromium bath, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 253Cr, will use a composite mesh pad scrubber instead of a packed-bed scrubber as an additional control device that is not used for compliance.

- (c) The wet scrubber controlling the rack strip line 255R will be replaced. The new wet scrubber also controls a used acid tank and an acid/cleaner tank. There is no change in potential emissions and no change in applicable rules. The acid tank and acid/cleaner tank are added to the facility description.
- (d) The word "rack" is removed from Section A.2 (i) and the facility description in Section D.2. Also, the words "sulfuric" and "nitric" are reversed.
- (e) The permit is revised to include that amp meters are an acceptable method of measuring operating time as long as the amount of time when the rectifiers are on and there is a part in the tank is recorded.
- (f) Delta Faucet complies with the chrome NESHAP via surface tension using a fume suppressant containing a wetting agent. The packed bed scrubber and composite mesh pad scrubber are additional control measures taken by Delta Faucet to further minimized emissions. The scrubbers remain in the emission unit descriptions along with a statement that they are not used for compliance. References to the control devices are removed from all conditions in the permit.
- (g) The authorized individual is Larry Meyer and the contact person is Russell Parks. The authorized individual is changed from Russell Parks to Larry Meyer in Section A.1 of the permit.
- (h) The words "Process Map" are removed from (h) in the Emissions Unit description box in Section D.2.
- (i) The allowable PM emissions from the buffing operations, pursuant to 326 IAC 6-3-2, are revised to reflect the correct maximum process weight rate of 15,000 pounds per hour.
- (j) The ongoing frequency of compliance monitoring for the chrome electroplating tanks was revised in an agreement between Delta Faucet Company and IDEM, OAM. The revision is be made in Conditions D.1.6 and D.7.6 of the permit.

Pursuant to 326 IAC 2-6.1-6, the minor source operating permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this permit revision which includes this letter, the attached operating conditions applicable to these emission units, and revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact CarrieAnn Ortolani, c/o OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Delta Faucet Company
Greensburg, Indiana

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MSOP 031-12463-00007

Attachments

CAO:MES

cc: File - Decatur County
U.S. EPA, Region V
Air Compliance Section Inspector - Warren Greiling
Air Compliance Section Inspector - David Rice
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

**CONSTRUCTION PERMIT
and MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR MANAGEMENT**

**Delta Faucet Company
1425 West Main Street
Greensburg, Indiana 47240**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, (326 IAC 2-5.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 031-11706-00007	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: May 25, 2000

First Minor Permit Revision: 031-12463-00007	Pages Affected: 5, 6, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 31, 32, 33, 34, 35, 36 and 37; and pages 6a and 25a added to the permit
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary chrome faucet electroplating source.

Authorized Individual:	Larry Meyer
Source Address:	1425 West Main Street, Greensburg, Indiana 47240
Mailing Address:	P.O. Box 47, Greensburg, Indiana 47240
Phone Number:	812 - 663 - 4433
SIC Code:	3432
County Location:	Decatur
County Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) One (1) decorative chromium electroplating tank, identified as T27, constructed prior to December 16, 1993, using a hexavalent chromium bath, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 1038Cr. This tank is also equipped with a packed-bed scrubber that is not used for compliance.
- (b) One (1) decorative chromium electroplating tank, identified as T23, constructed prior to December 16, 1993, using a hexavalent chromium bath, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 281Cr. This tank is also equipped with a packed-bed scrubber that is not used for compliance.
- (c) One (1) nickel electroplating bath, identified as T23, equipped with a wet scrubber and exhausting at stack 1038Ni.
- (d) One (1) nickel electroplating bath, identified as T18, equipped with a wet scrubber and exhausting at stack 281Ni.
- (e) One (1) copper plating tank, identified as 1038, equipped with a wet scrubber and exhausting at stack 1038Cu.
- (f) One (1) cyanide plating tank, identified as T18, equipped with a wet scrubber and exhausting at stack 574.
- (g) One (1) formaldehyde electroless plating tank, identified as EC Tank T12/T13, equipped with a wet scrubber and exhausting at stack 489.

- (h) One (1) Brite Dip tank, identified as T14, equipped with a wet scrubber and exhausting at stack 1715.
- (i) Two (2) strip lines, identified as 255R and 255P, using nitric acid and sulfuric acid, respectively, and equipped with wet scrubbers and exhausting at stacks 255R and 255P, respectively. A used acid tank and an acid/cleaner tank exhaust to the same scrubber as strip line 255R and stack 255R.
- (j) Buffing operations, equipped with three (3) air washers, identified as 2125, 2490 and 3011, and exhausting at stacks 2126, 2491 and 3011, respectively.
- (k) Brazing operations, identified as 10200, exhausting at stacks 1183, 1873, 1874, 1212 and 1105, capacity: 10.3 pounds per hour of solder, 1,800 pounds per hour of brass or copper parts, and 5.72 million British thermal units per hour.
- (l) One (1) cure oven, identified as 569, fired by natural gas and exhausting at stacks 569 North and 569 South, capacity: 3.6 million British thermal units per hour.
- (m) One (1) natural gas fired fluidized bed burn-off oven, rated at 0.99 million British thermal units per hour (mmBtu/hr), with a maximum capacity of 301 pounds per hour of parts and 1.56 pounds per hour of sand, using a cyclone for particulate matter control, and exhausting at one (1) stack identified as 2918.
- (n) One (1) powder spray booth, identified as 1421, equipped with a baghouse and exhausting to stack 1421, capacity: 16 pounds of powder per hour and 1,000 pounds per hour of raw materials.
- (o) One (1) boiler, identified as 1854, constructed in 1993, fired by natural gas and exhausting at stack 1854, capacity: 2.10 million British thermal units per hour.
- (p) Two (2) boilers, identified as 1307 and 1308, constructed in 1987, fired by natural gas and exhausting at stack 1307/1308, capacity: 0.75 million British thermal units per hour, each.
- (q) One (1) boiler, identified as 586, constructed in 1975, fired by natural gas, exhausting at stack 586, capacity: 25.20 million British thermal units per hour.
- (r) One (1) boiler, identified as 1513, constructed in 1990, fired by natural gas, exhausting at stack 1513, capacity: 32.94 million British thermal units per hour.
- (s) One (1) boiler, identified as 2256, constructed in 1994, fired by natural gas, exhausting at stack 2256, capacity: 14.70 million British thermal units per hour.
- (t) One (1) decorative chromium electroplating tank, identified as T21, using a hexavalent chromium bath, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 253Cr. This tank is also equipped with a composite mesh pad scrubber that is not used for compliance.
- (u) One (1) rack strip line, identified as 1038, consisting of two (2) rack strip tanks, four (4) rinse tanks and one (1) hot rinse tank, equipped with a wet scrubber and exhausting to stack 3230, maximum capacity: 2.05 pounds of alkaline cleaner per hour, 0.09 pounds of aqua ammonia per hour, 0.06 pounds of Acetic Acid per hour, and 0.49 pounds of Nitric Acid per hour.

- (v) One (1) powder spray booth, identified as 1599, constructed in April 1991, equipped with a baghouse and exhausting through stack 1599, capacity: 0.16 pounds of powder per hour and 34 pounds of parts coated per hour.
- (w) One (1) WWT sludge dryer, identified as 2209, equipped with a wet scrubber.
- (x) One (1) maintenance welding booth, identified as Booth 11-1, exhausting to stack 11-1, capacity: 0.2 pound of Oxyacetylene welding wire per hour.
- (y) One (1) tool room welding booth, exhausting to stack 1799, capacity: 0.2 pound of Oxyacetylene welding wire per hour.
- (z) Two (2) lab hoods.
- (aa) One (1) inductively coupled plasma (ICP) unit.

SECTION D.1

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) decorative chromium electroplating tank, identified as T27, constructed prior to December 16, 1993, using a hexavalent chromium bath, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 1038Cr. This tank is also equipped with a packed-bed scrubber that is not used for compliance.
- (b) One (1) decorative chromium electroplating tank, identified as T23, constructed prior to December 16, 1993, using a hexavalent chromium bath, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 281Cr. This tank is also equipped with a packed-bed scrubber that is not used for compliance.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.1.1 General Provisions Relating to HAPs [326 IAC 20-1-1] [40 CFR Part 63, Subpart A]

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart N.

D.1.2 Chromium Electroplating NESHAP [326 IAC 20-8-1] [40 CFR 63.342(c)&(f)] [40 CFR 63.343(a)(1)&(2)]

Tanks T27 and T23 are subject to 40 CFR Part 63, Subpart N, which is incorporated by reference as 326 IAC 20-8-1. A copy of this rule is attached.

- (a) The emission limitations in this condition apply only during tank operation, and also apply during periods of startup and shutdown as these are routine occurrences for tanks subject to 326 IAC 20-8-1. The emission limitations do not apply during periods of malfunction, but the work practice standards that address operation and maintenance required by this section must be followed during malfunctions and periods of excess emissions.
- (b) During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from each tank by using a chemical fume suppressant containing a wetting agent and not allowing the surface tension of the electroplating baths contained within the tanks to exceed forty-five (45) dynes per centimeter (dynes/cm) (3.1×10^{-3} pound-force per foot [lbf/ft]) at any time during operation of the tanks.
- (c) The following work practice standards for the tanks are also applicable:
 - (1) At all times, including periods of startup, shutdown, malfunction and excess emissions, the Permittee shall operate and maintain the tanks, the fume suppressant, and monitoring equipment in a manner consistent with good air pollution control practices, consistent with the Operation and Maintenance Plan (OMP) required by Condition D.1.4.
 - (2) Malfunctions and excess emissions shall be corrected as soon as practicable after their occurrence in accordance with the OMP required by Condition D.1.4.

- (3) These operation and maintenance requirements are enforceable independent of emissions limitations or other requirements in this section.
- (4) Determination of whether acceptable operation and maintenance procedures are being used will be based on the information available to IDEM, OAM, which may include, but is not limited to, monitoring results; review of the OMP, procedures and records; and inspection of the source.
- (5) Based on the results of the determination made under Condition D.1.2(c)(3) above, IDEM, OAM may require that the Permittee make changes to the OMP. Revisions may be required if IDEM, OAM finds that the plan:
 - (A) Does not address a malfunction or period of excess emissions that has occurred;
 - (B) Fails to provide for the operation of the tanks, air pollution control techniques (i.e., the fume suppressant), or process monitoring equipment during a malfunction in a manner consistent with good air pollution control practices; or
 - (C) Does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.

D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for tanks T27 and T23.

D.1.4 Operation and Maintenance Plan [40 CFR 63.342(f)(3)]

- (a) The Permittee shall prepare an Operation and Maintenance Plan (OMP) in accordance with 40 CFR 63.342(f)(3) to be implemented no later than the compliance date of tanks T27 and T23. The OMP shall specify the operation and maintenance criteria for the tanks, the fume suppressant, and monitoring equipment, and shall include the following elements:
 - (1) Manufacturers recommendations for maintenance of the monitoring equipment used to measure surface tension;
 - (2) A standardized checklist to document the operation and maintenance criteria for the tanks, the fume suppressant, and monitoring equipment;
 - (3) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions or periods of excess emissions as indicated by monitoring data do not occur;
 - (4) A systematic procedure for identifying malfunctions and periods of excess emissions of the tanks, the fume suppressant, and monitoring equipment; and for implementing corrective actions to address such malfunctions;
- (b) The Permittee may use applicable standard operating procedures (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans such as the PMP required in Condition D.1.3, as the OMP, provided the alternative plans meet the above listed criteria in Condition D.1.4(a).

- (c) If the OMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction or period of excess emissions at the time the plan is initially developed, the Permittee shall revise the OMP within forty five (45) days after such an event occurs. The revised plan shall include procedures for operating and maintaining the tanks, the fume suppressant, and the monitoring equipment, during similar malfunction or excess emissions events, and a program for corrective action for such events.
- (d) If actions taken by the Permittee during periods of malfunction or period of excess emissions are inconsistent with the procedures specified in the OMP, the Permittee shall record the actions taken for that event and shall report by phone such actions within two (2) working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within seven (7) working days after the end of the event, unless the Permittee makes alternative reporting arrangements, in advance, with IDEM, OAM.
- (e) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAM for the life of the tanks or until the tanks are no longer subject to the provisions of 40 CFR 63.340. In addition, if the OMP is revised, the Permittee shall keep previous versions of the OMPs on record to be made available for inspection, upon request by IDEM, OAM for a period of five (5) years after each revision to the plan.

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.1.5 Performance Testing Requirements [326 IAC 2-1.1-11] [40 CFR 63.344] [40 CFR 63.343(b)(2)] [40 CFR 63.7]

- (a) Pursuant to 40 CFR 63.343(c)(5)(i), the Permittee has accepted 45 dynes/cm as the maximum surface tension value that corresponds to compliance with the applicable emission limitation, 0.01 mg/dscm (4.4×10^{-6} gr/dscf), in lieu of establishing the maximum surface tension during an initial performance test.
- (b) The Permittee is not required to test tanks T27 and T23 by this permit. However, IDEM, OAM may require testing when necessary to determine if the tanks are in compliance. If testing is required by IDEM, OAM, compliance with the limit of 0.01 milligrams per dry standard cubic meter shall be determined by a performance test conducted in accordance with the provisions of 40 CFR 63.344 and Section C - Performance Testing.
- (c) Any change, modification, or reconstruction of the tanks, the fume suppressant, or monitoring equipment may require additional performance testing conducted in accordance with 40 CFR 63.344 and Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

D.1.6 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.343 (c)(5) & (7)]

- (a) Pursuant to 40 CFR 63.343(c)(5)(ii) and (iii), when using a wetting agent in the electroplating bath to comply with the limits specified in Condition D.1.2, the Permittee shall monitor the surface tension of the electroplating baths. Operation of tanks T27 and T23 at a surface tension greater than 45 dynes per centimeter shall constitute noncompliance with the standards.
 - (1) The Permittee shall monitor the surface tension of the electroplating bath during tank operation according to the following schedule:

- (A) The surface tension shall be measured once every 4 hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B, appendix A of this part.
 - (B) The time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every 4 hours of tank operation for the first 40 hours of tank operation after the compliance date. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every day of tank operation, provided there are no more than 40 hours between measurements, on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed by this subpart is once every 40 hours of tank operation.
 - (C) Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every 4 hours must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in paragraph (B) above. For example, if a Permittee had been monitoring a tank once every 40 hours and an exceedance occurs, subsequent monitoring would take place once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation, monitoring can occur once every 8 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 40 hours of tank operation.
- (2) Once a bath solution is drained from a tank and a new solution added, the original monitoring schedule of once every 4 hours must be resumed, with a decrease in monitoring frequency allowed following the procedures in paragraphs (B) and (C) above.
- (b) Tank operation or operating time is defined as that time when a part is in the tank. When there is no part in a tank for fifteen (15) or more minutes, the tank will not be considered to be in operation, and that time will not be considered operating time. Likewise, if the time between removing one part from the tank and placing another part into the tank is less than fifteen (15) minutes, the tank will be considered to be in operation and that time between plating the two parts will be considered part of the operating time. Amp meters are an acceptable method of measuring operating time provided the amp meter only records time when the rectifier is on and there is a part in the tank.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

D.1.7 Record Keeping Requirements [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.346]

The Permittee shall maintain records to document compliance with Conditions D.1.2 and D.1.4 using the forms provided with this permit. These records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit and include a minimum of the following:

- (a) Inspection records for the fume suppressant, and monitoring equipment to document that the inspection and maintenance required by Conditions D.1.5 and D.1.6 have taken place. The record can take the form of a checklist and should identify the following:
 - (1) The device inspected;

- (2) The date of inspection;
 - (3) A brief description of the working condition of the device during the inspection, including any deficiencies found; and
 - (4) Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.
- (b) Records of all maintenance performed on tanks T27 and T23, and monitoring equipment.
 - (c) Records of the occurrence, duration, and cause (if known) of each malfunction of tanks T27 and T23, the fume suppressant, and monitoring equipment.
 - (d) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of tanks T27 and T23, the fume suppressant, and monitoring equipment as indicated by monitoring data collected in accordance with this condition.
 - (e) Records of actions taken during periods of malfunction or excess emissions when such actions are inconsistent with the OMP.
 - (f) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.
 - (g) Test reports documenting results of all performance tests.
 - (h) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.
 - (i) Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.
 - (j) The total process operating time, as defined in Condition D.1.6(b), of each tank, during the reporting period.
 - (k) Records of the date and time that fume suppressants were added to the electroplating bath, and the amount and type of fume suppressants added.
 - (l) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Condition D.1.8.

D.1.8 Reporting Requirements [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.344(a)] [40 CFR 63.345] [40 CFR 63.347]

The notifications and reports required in this section shall be submitted to IDEM, OAM using the address specified in Section C - General Reporting Requirements.

- (a) Notifications:
 - (1) Initial Notifications
The Permittee shall notify IDEM, OAM in writing that the source is subject to 40 CFR Part 63, Subpart N. The initial notification for tanks T27 and T23 has been submitted to IDEM, OAM.

- (2) A Notification of Compliance Status (NCS) is required each time that the facility becomes subject to the requirements of 40 CFR Part 63 Subpart N.
 - (A) The NCS shall be submitted to IDEM, OAM, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).
 - (B) The NCS for tanks T27 and T23 has been submitted to IDEM, OAM.
- (3) Notification of Construction or Reconstruction
Pursuant to 40 CFR 63.345(b)(1), the Permittee may not construct a new tank subject to 40 CFR 63, Subpart N (including non-affected tanks defined in 40 CFR 63.344(e)) without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAM. In addition, the Permittee may not change, modify, or reconstruct tanks T27 and T23 without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAM.
 - (A) The NCR shall contain the information identified in 40 CFR 63.345(b) (2) and (3).
 - (B) A change, modification, or reconstruction of this facility includes any change in the air pollution control techniques, the addition of add-on control devices, or the construction of duct work for the purpose of controlling both existing tanks and non-affected facilities by a common control technique or device.
 - (C) A complete application to construct new chromium electroplating or chromium anodizing tanks serves as this notification. Likewise, the complete application to modify or reconstruct tanks T27 and T23 serves as this notification.
 - (D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAM before construction, modification, or reconstruction may commence.
- (b) Performance Test Results
The Permittee shall document results from any future performance tests in a complete test report that contains the information required in 40 CFR 344(a).

The Permittee shall submit reports of performance test results as part of the Notification of Compliance Status, described in 40 CFR 63.347(e), no later than forty-five (45) days following the completion of the performance test.
- (c) Ongoing Compliance Status Report
The Permittee shall prepare summary reports to document the ongoing compliance status of tanks T27 and T23 using the Ongoing Compliance Status Report form provided with this permit. This report shall contain the information specified in 40 CFR 63.347(g)(3).

Because tanks T27 and T23 are located at site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status Report shall be retained on site and made available to IDEM, OAM upon request.
 - (1) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in paragraphs (c)(2).

- (A) The first report shall cover the period from the start-up date of the emissions units to December 31 of the year in which the emissions units begin operation.
 - (B) Following the first year of reporting, the report shall be completed on a calendar year basis with the reporting period covering from January 1 to December 31.
- (2) If either of the following conditions are met, semiannual reports shall be prepared and submitted to IDEM, OAM:
- (A) The total duration of excess emissions (as indicated by the monitoring data collected by the Permittee in accordance with 40 CFR 63.343(c)) is one percent (1%) or greater of the total operating time as defined in Condition D.1.6(b) for the reporting period; or
 - (B) The total duration of malfunctions of the monitoring equipment is five percent (5%) or greater of the total operating time as defined in Condition D.1.6(b).
- Once the Permittee reports an exceedance as defined above, Ongoing Compliance Status Reports shall be submitted semiannually until a request to reduce reporting frequency is approved.
- (3) IDEM, OAM may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the source.

SECTION D.2

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (c) One (1) nickel electroplating bath, identified as T23, equipped with a wet scrubber and exhausting at stack 1038Ni.
- (d) One (1) nickel electroplating bath, identified as T18, equipped with a wet scrubber and exhausting at stack 281Ni.
- (e) One (1) copper plating tank, identified as 1038, equipped with a wet scrubber and exhausting at stack 1038Cu.
- (f) One (1) cyanide plating tank, identified as T18, equipped with a wet scrubber and exhausting at stack 574.
- (g) One (1) formaldehyde electroless plating tank, identified as EC Tank T12/T13, equipped with a wet scrubber and exhausting at stack 489.
- (h) One (1) Brite Dip tank, identified as T14, equipped with a wet scrubber and exhausting at stack 1715.
- (i) Two (2) strip lines, identified as 255R and 255P, using nitric acid and sulfuric acid, respectively, and equipped with wet scrubbers and exhausting at stacks 255R and 255P, respectively. A used acid tank and an acid/cleaner tank exhaust to the same scrubber as strip line 255R and stack 255R.
- (j) Buffing operations, equipped with three (3) air washers, identified as 2125, 2490 and 3011, and exhausting at stacks 2126, 2491 and 3011, respectively.
- (k) Brazing operations, identified as 10200, exhausting at stacks 1183, 1873, 1874, 1212 and 1105, capacity: 10.3 pounds per hour of solder, 1,800 pounds per hour of brass or copper parts, and 5.72 million British thermal units per hour.
- (l) One (1) cure oven, identified as 569, fired by natural gas and exhausting at stacks 569 North and 569 South, capacity: 3.6 million British thermal units per hour.
- (m) One (1) natural gas fired fluidized bed burn-off oven, rated at 0.99 million British thermal units per hour (mmBtu/hr), with a maximum capacity of 301 pounds per hour of parts and 1.56 pounds per hour of sand, using a cyclone for particulate matter control, and exhausting at one (1) stack identified as 2918.
- (u) One (1) rack strip line, identified as 1038, consisting of two (2) rack strip tanks, four (4) rinse tanks and one (1) hot rinse tank, equipped with a wet scrubber and exhausting to stack 3230, maximum capacity: 2.05 pounds of alkaline cleaner per hour, 0.09 pounds of aqua ammonia per hour, 0.06 pounds of Acetic Acid per hour, and 0.49 pounds of Nitric Acid per hour.
- (w) One (1) WWT sludge dryer, identified as 2209, equipped with a wet scrubber.
- (x) One (1) maintenance welding booth, identified as Booth 11-1, exhausting to stack 11-1, capacity: 0.2 pound of Oxyacetylene welding wire per hour.

- (y) One (1) tool room welding booth, exhausting to stack 1799, capacity: 0.2 pound of Oxyacetylene welding wire per hour.
- (z) Two (2) lab hoods.
- (aa) One (1) inductively coupled plasma (ICP) unit.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

- (a) The particulate matter (PM) from the buffing operations shall be limited to less than 15.8 pounds per hour when operating at a process weight rate of 15,000 pounds per hour.
- (b) The particulate matter (PM) from the fluidized bed burn off oven shall be limited to less than 1.15 pounds per hour, when operating at a process weight rate of 303 pounds per hour.

These limits were computed using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

- (c) The particulate matter (PM) from the brazing operations shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

- (d) The particulate matter (PM) from the one (1) maintenance welding booth and the one (1) tool room welding booth shall each be limited to less than 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour, each. This limit is calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

- (e) The particulate matter (PM) from the WWT sludge dryer, strip lines, two (2) lab hoods, and one (1) ICP unit shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3]

The requirement from the Registration issued April 26, 1982 and the Registration issued July 5, 1984 that emissions shall be at a level acceptable to 325 IAC 8-3, is not applicable because the solvent recovery facility and degreaser registered by those approvals are no longer in existence at the source.

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.2.3 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test these emissions units by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions units are in compliance. If testing is required by IDEM, compliance with the PM limits specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.2.4 Particulate Matter (PM)

- (a) Pursuant to CP031-9717-00007, issued on May 28, 1998, the cyclone for PM control shall be in operation at all times when the fluidized bed burn off oven is in operation.
- (b) The scrubbers for the strip lines and the WWT sludge dryer shall be in operation at all times the strip lines and WWT sludge dryer are in operation.

SECTION D.3

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (n) One (1) powder spray booth, identified as 1421, equipped with a baghouse and exhausting to stack 1421, capacity: 16 pounds of powder per hour and 1,000 pounds per hour of raw materials.
- (v) One (1) powder spray booth, identified as 1599, constructed in April 1991, equipped with a baghouse and exhausting through stack 1599, capacity: 0.16 pounds of powder per hour and 34 pounds of parts coated per hour.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

- (a) The particulate matter (PM) from the powder spray booth, identified as 1421, shall be limited to 2.58 pounds per hour when operating at a process weight rate of 1,000 pounds per hour.
- (b) The particulate matter (PM) from the powder spray booth, identified as 1599, shall be limited to no more than 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour.

These limitations were determined by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.3.2 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test these emissions units by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions units are in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.3.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.3.3 Particulate Matter (PM)

The baghouse for PM control shall be in operation at all times when the powder spray booth, identified as 1421, is in operation.

SECTION D.7

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (t) One (1) decorative chromium electroplating tank, identified as T21, using a hexavalent chromium bath, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 253Cr. This tank is also equipped with a composite mesh pad scrubber that is not used for compliance.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.7.1 General Provisions Relating to HAPs [326 IAC 20-1-1] [40 CFR Part 63, Subpart A]

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart N.

D.7.2 Chromium Electroplating NESHAP [326 IAC 20-8-1] [40 CFR 63.342(c)&(f)] [40 CFR 63.343(a) (1)&(2)]

Tank T21 is subject to 40 CFR Part 63, Subpart N, which is incorporated by reference as 326 IAC 20-8-1. A copy of this rule is attached.

- (a) The emission limitations in this condition apply only during tank operation, and also apply during periods of startup and shutdown as these are routine occurrences for tanks subject to 326 IAC 20-8-1. The emission limitations do not apply during periods of malfunction, but the work practice standards that address operation and maintenance required by this section must be followed during malfunctions and periods of excess emissions.
- (b) During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from each tank by using a chemical fume suppressant containing a wetting agent and not allowing the surface tension of the electroplating baths contained within the tank to exceed forty-five (45) dynes per centimeter (dynes/cm) (3.1×10^{-3} pound-force per foot [lbf/ft]) at any time during operation of the tank.
- (c) The following work practice standards for the tank are also applicable:
- (1) At all times, including periods of startup, shutdown, malfunction and excess emissions, the Permittee shall operate and maintain the tank, the fume suppressant, and monitoring equipment in a manner consistent with good air pollution control practices, consistent with the Operation and Maintenance Plan (OMP) required by Condition D.7.4.
 - (2) Malfunctions and excess emissions shall be corrected as soon as practicable after their occurrence in accordance with the OMP required by Condition D.7.4.
 - (3) These operation and maintenance requirements are enforceable independent of emissions limitations or other requirements in this section.
 - (4) Determination of whether acceptable operation and maintenance procedures are being used will be based on the information available to IDEM, OAM, which may include, but is not limited to, monitoring results; review of the OMP, procedures and records; and inspection of the source.

- (5) Based on the results of the determination made under Condition D.7.2(c)(3) above, IDEM, OAM may require that the Permittee make changes to the OMP. Revisions may be required if IDEM, OAM finds that the plan:
 - (A) Does not address a malfunction or period of excess emissions that has occurred;
 - (B) Fails to provide for the operation of the tank, air pollution control techniques (i.e., the fume suppressant), or process monitoring equipment during a malfunction in a manner consistent with good air pollution control practices; or
 - (C) Does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.

D.7.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for tank T21.

D.7.4 Operation and Maintenance Plan [40 CFR 63.342(f)(3)]

- (a) The Permittee shall prepare an Operation and Maintenance Plan (OMP), in accordance with 40 CFR 63.342(f)(3) to be implemented no later than the compliance date of tank T21. The OMP shall specify the operation and maintenance criteria for the tank, the fume suppressant, and monitoring equipment, and shall include the following elements:
 - (1) Manufacturers recommendations for maintenance of the monitoring equipment used to measure surface tension;
 - (2) A standardized checklist to document the operation and maintenance criteria for the tank, the fume suppressant, and monitoring equipment;
 - (3) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions or periods of excess emissions as indicated by monitoring data do not occur;
 - (4) A systematic procedure for identifying malfunctions and periods of excess emissions of the tank, the fume suppressant, and monitoring equipment; and for implementing corrective actions to address such malfunctions;
- (b) The Permittee may use applicable standard operating procedures (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans such as the PMP required in Condition D.7.3, as the OMP, provided the alternative plans meet the above listed criteria in Condition D.7.4(a).
- (c) If the OMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction or period of excess emissions at the time the plan is initially developed, the Permittee shall revise the OMP within forty five (45) days after such an event occurs. The revised plan shall include procedures for operating and maintaining the tank, the fume suppressant, and the monitoring equipment, during similar malfunction or excess emissions events, and a program for corrective action for such events.

- (d) If actions taken by the Permittee during periods of malfunction or period of excess emissions are inconsistent with the procedures specified in the OMP, the Permittee shall record the actions taken for that event and shall report by phone such actions within two (2) working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within seven (7) working days after the end of the event, unless the Permittee makes alternative reporting arrangements, in advance, with IDEM, OAM.
- (e) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAM for the life of the tank or until the tank is no longer subject to the provisions of 40 CFR 63.340. In addition, if the OMP is revised, the Permittee shall keep previous versions of the OMPs on record to be made available for inspection, upon request by IDEM, OAM for a period of five (5) years after each revision to the plan.

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.7.5 Performance Testing Requirements [326 IAC 2-1.1-11] [40 CFR 63.344] [40 CFR 63.343(b)(2)] [40 CFR 63.7]

- (a) Pursuant to 40 CFR 63.343(c)(5)(i), the Permittee has accepted 45 dynes/cm as the maximum surface tension value that corresponds to compliance with the applicable emission limitation, 0.01 mg/dscm (4.4×10^{-6} gr/dscf), in lieu of establishing the maximum surface tension during an initial performance test.
- (b) The Permittee is not required to test tank T21 by this permit. However, IDEM, OAM may require testing when necessary to determine if the tank is in compliance. If testing is required by IDEM, OAM, compliance with the limit of 0.01 milligrams per dry standard cubic meter shall be determined by a performance test conducted in accordance with the provisions of 40 CFR 63.344 and Section C - Performance Testing.
- (c) Any change, modification, or reconstruction of tank T21, the fume suppressant, or monitoring equipment may require additional performance testing conducted in accordance with 40 CFR 63.344 and Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.7.6 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.343 (c)(5) & (7)]

- (a) Pursuant to 40 CFR 63.343(c)(5)(ii) and (iii), when using a wetting agent in the electroplating bath to comply with the limits specified in Condition D.7.2, the Permittee shall monitor the surface tension of the electroplating bath. Operation of tank T21 at a surface tension greater than 45 dynes per centimeter shall constitute noncompliance with the standards.
 - (1) The Permittee shall monitor the surface tension of the electroplating bath during tank operation according to the following schedule:
 - (A) The surface tension shall be measured once every 4 hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B, appendix A of this part.

- (B) The time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every 4 hours of tank operation for the first 40 hours of tank operation after the compliance date. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every day of tank operation, provided there are no more than 40 hours between measurements, on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed by this subpart is once every 40 hours of tank operation.
- (C) Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every 4 hours must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in paragraph (B) above. For example, if a Permittee had been monitoring a tank once every 40 hours and an exceedance occurs, subsequent monitoring would take place once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation, monitoring can occur once every 8 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 40 hours of tank operation.
- (2) Once a bath solution is drained from a tank and a new solution added, the original monitoring schedule of once every 4 hours must be resumed, with a decrease in monitoring frequency allowed following the procedures in paragraphs (B) and (C) above.
- (b) Tank operation or operating time is defined as that time when a part is in the tank. When there is no part in a tank for fifteen (15) or more minutes, the tank will not be considered to be in operation, and that time will not be considered operating time. Likewise, if the time between removing one part from the tank and placing another part into the tank is less than fifteen (15) minutes, the tank will be considered to be in operation and that time between plating the two parts will be considered part of the operating time. Amp meters are an acceptable method of measuring operating time provided the amp meter only records time when the rectifier is on and there is a part in the tank.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.7.7 Record Keeping Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.346]

The Permittee shall maintain records to document compliance with Conditions D.7.2 and D.7.4 using the forms provided with this permit. These records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit and include a minimum of the following:

- (a) Inspection records for the fume suppressant, and monitoring equipment to document that the inspection and maintenance required by Conditions D.7.5 and D.7.6 have taken place. The record can take the form of a checklist and should identify the following:
 - (1) The device inspected;
 - (2) The date of inspection;
 - (3) A brief description of the working condition of the device during the inspection, including any deficiencies found; and

- (4) Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.
- (b) Records of all maintenance performed on tank T21, the fume suppressant, and monitoring equipment.
- (c) Records of the occurrence, duration, and cause (if known) of each malfunction of tank T21, the fume suppressant, monitoring equipment.
- (d) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of tank T21, the fume suppressant, and monitoring equipment as indicated by monitoring data collected in accordance with this condition.
- (e) Records of actions taken during periods of malfunction or excess emissions when such actions are inconsistent with the OMP.
- (f) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.
- (g) Test reports documenting results of all performance tests.
- (h) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.
- (i) Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.
- (j) The total process operating time, as defined in Condition D.7.6(b), of the tank, during the reporting period.
- (k) Records of the date and time that fume suppressants were added to the electroplating bath, and the amount and type of fume suppressants added.
- (l) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Condition D.7.8.

D.7.8 Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.344(a)] [40 CFR 63.345] [40 CFR 63.347]

The notifications and reports required in this section shall be submitted to IDEM, OAM using the address specified in Section C - General Reporting Requirements.

(a) Notifications:

(1) Initial Notifications

The Permittee shall submit an Initial Notification for tank T21 as follows:

- (A) A notification of the actual date when construction of tank T21 commenced shall be submitted no later than thirty (30) days after such date.
- (B) A notification of the actual date of startup of tank T21 shall be submitted within thirty (30) days after such date.

- (2) A Notification of Compliance Status (NCS) is required each time that the facility becomes subject to the requirements of 40 CFR Part 63 Subpart N.
 - (A) The NCS shall be submitted to IDEM, OAM, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).
 - (B) The NCS for tank T21 shall be submitted to IDEM, OAM no later than 30 days after the startup date.
- (3) Notification of Construction or Reconstruction
Pursuant to 40 CFR 63.345(b)(1), the Permittee may not construct a new tank subject to 40 CFR 63, Subpart N (including non-affected tanks defined in 40 CFR 63.344(e)) without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAM. In addition, the Permittee may not change, modify, or reconstruct tank T21 without submitting an NCR to IDEM, OAM.
 - (A) The NCR shall contain the information identified in 40 CFR 63.345(b) (2) and (3).
 - (B) A change, modification, or reconstruction of this facility includes any change in the air pollution control techniques, the addition of add-on control devices, or the construction of duct work for the purpose of controlling both existing tanks and non-affected facilities by a common control technique or device.
 - (C) A complete application to construct new chromium electroplating or chromium anodizing tanks serves as this notification. Likewise, the complete application to modify or reconstruct tank T21 serves as this notification.
 - (D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAM before construction, modification, or reconstruction may commence.
- (b) Performance Test Results
The Permittee shall document results from the initial performance test and any future performance tests in a complete test report that contains the information required in 40 CFR 344(a).

The Permittee shall submit reports of performance test results as part of the Notification of Compliance Status, described in 40 CFR 63.347(e), no later than forty-five (45) days following the completion of the performance test.
- (c) Ongoing Compliance Status Report
The Permittee shall prepare summary reports to document the ongoing compliance status of tank T21 using the Ongoing Compliance Status Report form provided with this permit. This report shall contain the information specified in 40 CFR 63.347(g)(3).

Because tank T21 is located at site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status Report shall be retained on site and made available to IDEM, OAM upon request.
- (1) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in paragraphs (c)(2).

- (A) The first report shall cover the period from the start-up date of the emissions units to December 31 of the year in which the emissions units begin operation.
 - (B) Following the first year of reporting, the report shall be completed on a calendar year basis with the reporting period covering from January 1 to December 31.
- (2) If either of the following conditions are met, semiannual reports shall be prepared and submitted to IDEM, OAM:
 - (A) The total duration of excess emissions (as indicated by the monitoring data collected by the Permittee in accordance with 40 CFR 63.343(c)) is one percent (1%) or greater of the total operating time as defined in Condition D.7.6(b) for the reporting period; or
 - (B) The total duration of malfunctions of the monitoring equipment is five percent (5%) or greater of the total operating time as defined in Condition D.7.6(b).

Once the Permittee reports an exceedance as defined above, Ongoing Compliance Status Reports shall be submitted semiannually until a request to reduce reporting frequency is approved.
- (3) IDEM, OAM may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the source.

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Permit Revision to a Minor Source

Source Background and Description

Source Name:	Delta Faucet Company
Source Location:	1425 West Main Street, Greensburg, Indiana 47240
County:	Decatur
SIC Code:	3432
Operation Permit No.:	MSOP 031-11706-00007
Operation Permit Issuance Date:	May 25, 2000
Significant Permit Revision No.:	MPR 031-12463-00007
Permit Reviewer:	CarrieAnn Ortolani

The Office of Air Management (OAM) has reviewed a revision application from Delta Faucet Company relating to the following:

- (a) Operation of the following emission units and pollution control devices that were in existence when the MSOP was issued but were not included in the review:
 - (1) One (1) rack strip line, identified as 1038, consisting of two (2) rack strip tanks, four (4) rinse tanks and one (1) hot rinse tank, equipped with a wet scrubber and exhausting to stack 3230, maximum capacity: 2.05 pounds of alkaline cleaner per hour, 0.09 pounds of aqua ammonia per hour, 0.06 pounds of Acetic Acid per hour, and 0.49 pounds of Nitric Acid per hour.
 - (2) One (1) powder spray booth, identified as 1599, constructed in April 1991, equipped with a baghouse and exhausting through stack 1599, capacity: 0.16 pounds of powder per hour and 34 pounds of parts coated per hour.
 - (3) One (1) WWT sludge dryer, identified as 2209, equipped with a wet scrubber.
 - (4) One (1) maintenance welding booth, identified as Booth 11-1, exhausting to stack 11-1, capacity: 0.2 pound of Oxyacetylene welding wire per hour.
 - (5) One (1) tool room welding booth, exhausting to stack 1799, capacity: 0.2 pound of Oxyacetylene welding wire per hour.
 - (6) Two (2) lab hoods.
 - (7) One (1) inductively coupled plasma (ICP) unit.

- (b) The following changes are also taking place at this source:
- (1) The one (1) chrome electroplating tank proposed for construction in MSOP 031-11706-00007, issued on May 25, 2000, will have a composite mesh pad scrubber instead of a packed bed scrubber. This control device will not be used for compliance with the NESHAP.
 - (2) In addition, the wet scrubber controlling the rack strip line 255R will be replaced. The new wet scrubber also controls a used acid tank and an acid/cleaner tank. There is no change in potential emissions and no change in applicable rules. The acid tank and acid/cleaner tank are added to the facility description.
- (c) Delta Faucet Company also requested the following changes to the Minor Source Operating Permit:
- (1) The word "rack" should be removed from Section A.2 (i) and the facility description in Section D.2. Also, the words "sulfuric" and "nitric" should be reversed. These changes are made.
 - (2) Delta Faucet Company has not previously operated with an operation and maintenance plan (OMP) for the Chrome NESHAP. Delta Faucet requests that the compliance time frame for T23 and T27 start with the date that the issued permit corrections are complete. A letter was sent from Delta Faucet Company to IDEM, OAM, on February 22, 1996 stating that IDEM has exempted Delta Faucet Company from preparing an Operation and Maintenance Plan. The permit requires that the plan be implemented no later than the compliance date of tanks T27 and T23. Pursuant to 40 CFR 63.342(f)(3), an OMP is required of the owner or operator of an affected source subject to the work practices of 63.342(f). Pursuant to 63.342(f) and 63.342(d), these work practices are applicable to decorative electroplating sources using fume suppressants containing wetting agents to control emissions. Since the source did not obtain an official document from IDEM, OAM, indicating that a OMP is not required and the OMP is required by the NESHAP, the permit is not revised.
 - (3) Delta Faucet has installed amp meters to record actual hours of tank operation and would like the permit to reflect that amp meters are an acceptable way to measure operating time. Operating time is the time when the rectifiers are on and there is a part in the tank. The permit is revised to include that amp meters are an acceptable method of measuring operating time as long as the amount of time when the rectifiers are on and there is a part in the tank is recorded.
 - (4) Delta Faucet complies with the chrome NESHAP via surface tension using a fume suppressant containing a wetting agent. The packed bed scrubber and composite mesh pad scrubber are additional control measures taken by Delta Faucet to further minimized emissions. Since operating the control devices are optional, Delta Faucet has requested that all references to the scrubber are removed from the permit. The scrubbers will remain in the emission unit descriptions along with a statement that they are optional. References to the control devices are removed from all conditions in the permit.

- (5) The authorized individual is Larry Meyer and the contact person is Russell Parks. The authorized individual is changed from Russell Parks to Larry Meyer in Section A.1 of the permit.
- (6) The words "Process Map" are removed from (h) in the Emissions Unit description box in Section D.2, as requested by Delta Faucet Company.
- (7) The maximum process weight rate at the buffing operations is 15,000 pounds per hour and not 1,500 pounds per hour, as stated in Condition D.2.1 of MSOP 031-11760-00007, issued on May 25, 2000. The potential to emit was calculated using air washer parameters and will not change as a result of this correction. The allowable emissions pursuant to 326 IAC 6-3-2 will be revised.
- (8) The ongoing frequency of compliance monitoring for the chrome electroplating tanks was revised in an agreement between Delta Faucet Company and IDEM, OAM. The revision will be made in Conditions D.1.6 and D.7.6 of the permit.

History

On October 12, 2000, Delta Faucet Company submitted an application to the OAM requesting to add additional equipment to the Minor Source Operating Permit. The equipment has been previously constructed and operated. Delta Faucet Company also requested the changes previously mentioned. Delta Faucet Company was issued a Minor Source Operating Permit (MSOP) on May 25, 2000.

Enforcement Issue

There are no enforcement actions pending. All equipment that was not previously permitted did not require a permit at the time it was constructed.

Recommendation

The staff recommends to the Commissioner that the MSOP Significant Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on October 12, 2000. Additional information was received on October 23, 2000.

Emission Calculations

See pages 1 and 2 of 2 of Appendix A of this document for detailed emissions calculations. The lab hoods and ICP units have negligible emissions.

Potential To Emit of Revision

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls for this revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	12.9
PM ₁₀	12.9
SO ₂	0.00
VOC	0.00
CO	0.00
NO _x	2.15

HAPs	Potential To Emit (tons/year)
TOTAL	0.00

Justification for Revision

The MSOP is being revised through a MSOP Minor Permit Revision. This revision is being performed pursuant to 326 IAC 2-6.1-6(g)(4)(A), "Modifications that would have the potential to emit less than twenty-five (25) tons per year and greater than five (5) tons per year of Particulate matter (PM) or particulate matter less than ten (10) microns (PM₁₀)."

County Attainment Status

The source is located in Decatur County.

Pollutant	Status
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Decatur County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

- (b) Decatur County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	4.11
PM ₁₀	5.62
SO ₂	58.4
VOC	3.27
CO	31.7
NO _x	43.7

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon the Potential to Emit table in the TSD to MSOP 031-11706-00007, issued on May 25, 2000.
- (c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Potential to Emit of Revision After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this MSOP revision.

	Potential to Emit (tons/year)						
Process/facility	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Proposed Revision	0.862	0.862	0.00	0.00	0.00	0.108	0.00
PSD Threshold Level	250	250	250	250	250	250	-

- (a) This revision to an existing minor stationary source is not major because the emission increase is less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.
- (b) This revision to the existing MSOP will **not** change the status of the stationary source because the emissions from the entire source will still be less than the Part 70 major source thresholds.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this proposed revision.
- (b) As stated in MSOP 031-11706-00007, the one (1) decorative chromium electroplating tank, identified as T21, is subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 14, (40 CFR 63, Subpart N, and 326 IAC 20-1-1). Pursuant to 40 CFR 63, Subpart N, and 326 IAC 20-1-1, the chromium electroplating operations are subject to the following conditions:

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart N.

- (1) Emission limitation:
The Permittee shall comply with the requirements of this rule on and after the compliance date for the tank.

During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from tank by:

- (A) Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed one-hundredth milligrams of total chromium per dry standard cubic meter of ventilation air (0.01 mg/dscm) [equivalent to four and four-tenths times ten raised to the power of negative six grains of total chromium per dry standard cubic foot of ventilation air (4.4×10^{-6} gr/dscf)]; or
- (B) Not allowing the surface tension of the anodizing bath contained within the tank to exceed forty-five dynes per centimeter (45 dynes/cm) [equivalent to three and one-tenth times ten raised to the power of negative three pound-force per foot (3.1×10^{-3} lb/ft)] at any time during operation of tank T21 when a chemical fume suppressant containing a wetting agent is used.

- (2) Monitoring Requirements:
The surface tension of the chromium electroplating bath contained within the tank shall not exceed forty-five (45) dynes per centimeter at any time during the operation of the tank if a chemical fume suppressant containing a wetting agent is used to demonstrate compliance.

Each time that surface tension monitoring exceeds forty-five (45) dynes per centimeter, the frequency of monitoring must revert back to every four (4) hours of tank operation. After forty (40) hours of monitoring tank operation every four (4) hours with no exceedances, surface tension measurement may be conducted once every eight (8) hours of tank operation. Once there have been no exceedances during forty (40) hours of tank operation, surface tension measurement may be conducted once every forty (40) hours of tank operation on an ongoing basis, until an exceedance occurs.

An alternative emission limit of 0.01 milligram per day standard cubic meter (mg/dscm) will be applicable if the chromium electroplating bath does not meet the limit above.

(3) Reporting Requirements:

A summary report shall be prepared to document the ongoing compliance status of the chromium electroplating operation. This report shall be completed annually, retained on site, and made available to IDEM upon request. If there are significant exceedance of chromium air emission limits (as defined in 40 CFR Part 63.347 (h)(2)), then semiannual reports shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Branch, Office of Air Management
Chromium Electroplating
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206

(4) The chromium electroplating operations shall be subject to the record keeping and reporting requirement as indicated in the chromium electroplating NESHAP.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

- (a) The particulate matter (PM) from the WWT sludge dryer, rack strip line, two (2) lab hoods and one (1) ICP unit shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The scrubbers for the rack strip line and the WWT sludge dryer shall be in operation at all times the rack strip line and WWT sludge dryer are in operation, in order to comply with this limit.

- (b) The particulate matter (PM) from the one (1) maintenance welding booth and the one (1) tool room welding booth shall each be limited to 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour, each. Since the potential to emit PM from each of the welding booths is 0.001 pounds per hour, the two (2) welding booths will comply with this rule. This limitation was determined by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

- (c) The particulate matter (PM) from the one (1) powder spray booth, identified as 1599, shall be limited to 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour. Since the potential to emit PM from the powder spray booth is 0.056 pounds per hour, the powder spray booth will comply with this rule. This limitation was determined by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Operation of the baghouse is not required to demonstrate compliance with this limit.

- (d) The particulate matter (PM) from the buffing operations shall be limited to no more than 15.8 pounds per hour, when operating at a process weight rate of 15,000 pounds per hour. Since the potential to emit PM from the buffing operations are 0.02 pounds per hour, the buffing operations will comply with this rule. This limitation was determined by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Operation of the three (3) air washers is not required to demonstrate compliance with this limit.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no additional compliance monitoring requirements resulting from this revision.

Proposed Changes

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in bold):

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary chrome faucet electroplating source.

Authorized Individual: ~~Russell Parks~~ **Larry Meyer**
Source Address: 1425 West Main Street, Greensburg, Indiana 47240
Mailing Address: P.O. Box 47, Greensburg, Indiana 47240
Phone Number: 812 - 663 - 4433
SIC Code: 3432
County Location: Decatur
County Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit
Minor Source, under PSD Rules;
Minor Source, Section 112 of the Clean Air Act

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) One (1) decorative chromium electroplating tank, identified as T27, constructed prior to December 16, 1993, using a hexavalent chromium bath, ~~equipped with a packed-bed scrubber~~, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 1038Cr. **This tank is also equipped with a packed-bed scrubber that is not used for compliance.**
- (b) One (1) decorative chromium electroplating tank, identified as T23, constructed prior to December 16, 1993, using a hexavalent chromium bath, ~~equipped with a packed-bed scrubber~~, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 281Cr. **This tank is also equipped with a packed-bed scrubber that is not used for compliance.**
- (c) One (1) nickel electroplating bath, identified as T23, equipped with a wet scrubber and exhausting at stack 1038Ni.
- (d) One (1) nickel electroplating bath, identified as T18, equipped with a wet scrubber and exhausting at stack 281Ni.
- (e) One (1) copper plating tank, identified as 1038, equipped with a wet scrubber and exhausting at stack 1038Cu.
- (f) One (1) cyanide plating tank, identified as T18, equipped with a wet scrubber and exhausting at stack 574.
- (g) One (1) formaldehyde electroless plating tank, identified as EC Tank T12/T13, equipped with a wet scrubber and exhausting at stack 489.
- (h) One (1) Brite Dip tank, identified as T14, equipped with a wet scrubber and exhausting at stack 1715.

- (i) Two (2) ~~rack~~ strip lines, identified as 255R and 255P, using ~~sulfuric acid and~~ nitric acid **and sulfuric acid**, respectively, and equipped with wet scrubbers and exhausting at stacks 255R and 255P, respectively. **A used acid tank and an acid/cleaner tank exhaust to the same scrubber as strip line 255R and stack 255R.**
- (j) Buffing operations, equipped with three (3) air washers, identified as 2125, 2490 and 3011, and exhausting at stacks 2126, 2491 and 3011, respectively.
- (k) Brazing operations, identified as 10200, exhausting at stacks 1183, 1873, 1874, 1212 and 1105, capacity: 10.3 pounds per hour of solder, 1,800 pounds per hour of brass or copper parts, and 5.72 million British thermal units per hour.
- (l) One (1) cure oven, identified as 569, fired by natural gas and exhausting at stacks 569 North and 569 South, capacity: 3.6 million British thermal units per hour.
- (m) One (1) natural gas fired fluidized bed burn-off oven, rated at 0.99 million British thermal units per hour (mmBtu/hr), with a maximum capacity of 301 pounds per hour of parts and 1.56 pounds per hour of sand, using a cyclone for particulate matter control, and exhausting at one (1) stack identified as 2918.
- (n) One (1) powder spray booth, identified as 1421, equipped with a baghouse and exhausting to stack 1421, capacity: 16 pounds of powder per hour and 1,000 pounds per hour of raw materials.
- (o) One (1) boiler, identified as 1854, constructed in 1993, fired by natural gas and exhausting at stack 1854, capacity: 2.10 million British thermal units per hour.
- (p) Two (2) boilers, identified as 1307 and 1308, constructed in 1987, fired by natural gas and exhausting at stack 1307/1308, capacity: 0.75 million British thermal units per hour, each.
- (q) One (1) boiler, identified as 586, constructed in 1975, fired by natural gas, exhausting at stack 586, capacity: 25.20 million British thermal units per hour.
- (r) One (1) boiler, identified as 1513, constructed in 1990, fired by natural gas, exhausting at stack 1513, capacity: 32.94 million British thermal units per hour.
- (s) One (1) boiler, identified as 2256, constructed in 1994, fired by natural gas, exhausting at stack 2256, capacity: 14.70 million British thermal units per hour.
- (t) One (1) decorative chromium electroplating tank, identified as T21, using a hexavalent chromium bath, ~~equipped with a packed-bed scrubber~~, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 253Cr. **This tank is also equipped with a composite mesh pad scrubber that is not used for compliance.**
- (u) **One (1) rack strip line, identified as 1038, consisting of two (2) rack strip tanks, four (4) rinse tanks and one (1) hot rinse tank, equipped with a wet scrubber and exhausting to stack 3230, maximum capacity: 2.05 pounds of alkaline cleaner per hour, 0.09 pounds of aqua ammonia per hour, 0.06 pounds of Acetic Acid per hour, and 0.49 pounds of Nitric Acid per hour.**

- (v) One (1) powder spray booth, identified as 1599, constructed in April 1991, equipped with a baghouse and exhausting through stack 1599, capacity: 0.16 pounds of powder per hour and 34 pounds of parts coated per hour.
- (w) One (1) WWT sludge dryer, identified as 2209, equipped with a wet scrubber.
- (x) One (1) maintenance welding booth, identified as Booth 11-1, exhausting to stack 11-1, capacity: 0.2 pound of Oxyacetylene welding wire per hour.
- (y) One (1) tool room welding booth, exhausting to stack 1799, capacity: 0.2 pound of Oxyacetylene welding wire per hour.
- (z) Two (2) lab hoods.
- (aa) One (1) inductively coupled plasma (ICP) unit.

SECTION D.1

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) decorative chromium electroplating tank, identified as T27, constructed prior to December 16, 1993, using a hexavalent chromium bath, ~~equipped with a packed-bed scrubber~~, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 1038Cr. **This tank is also equipped with a packed-bed scrubber that is not used for compliance.**
- (b) One (1) decorative chromium electroplating tank, identified as T23, constructed prior to December 16, 1993, using a hexavalent chromium bath, ~~equipped with a packed-bed scrubber~~, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 281Cr. **This tank is also equipped with a packed-bed scrubber that is not used for compliance.**

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.1.1 General Provisions Relating to HAPs [326 IAC 20-1-1] [40 CFR Part 63, Subpart A]

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart N.

D.1.2 Chromium Electroplating NESHAP [326 IAC 20-8-1] [40 CFR 63.342(c)&(f)] [40 CFR 63.343 (a)(1)&(2)]

Tanks T27 and T23 are subject to 40 CFR Part 63, Subpart N, which is incorporated by reference as 326 IAC 20-8-1. A copy of this rule is attached.

- (a) The emission limitations in this condition apply only during tank operation, and also apply during periods of startup and shutdown as these are routine occurrences for tanks subject to 326 IAC 20-8-1. The emission limitations do not apply during periods of malfunction, but the work practice standards that address operation and maintenance required by this section must be followed during malfunctions and periods of excess emissions.

- (b) During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from each tank by using a chemical fume suppressant containing a wetting agent and not allowing the surface tension of the electroplating baths contained within the tanks to exceed forty-five (45) dynes per centimeter (dynes/cm) (3.1×10^{-3} pound-force per foot [lbf/ft]) at any time during operation of the tanks.
- (c) The following work practice standards for the tanks are also applicable:
 - (1) At all times, including periods of startup, shutdown, malfunction and excess emissions, the Permittee shall operate and maintain the tanks, the fume suppressant, ~~the packed-bed scrubber~~, and monitoring equipment in a manner consistent with good air pollution control practices, consistent with the Operation and Maintenance Plan (OMP) required by Condition D.1.4.
 - (2) Malfunctions and excess emissions shall be corrected as soon as practicable after their occurrence in accordance with the OMP required by Condition D.1.4.
 - (3) These operation and maintenance requirements are enforceable independent of emissions limitations or other requirements in this section.
 - (4) Determination of whether acceptable operation and maintenance procedures are being used will be based on the information available to IDEM, OAM, which may include, but is not limited to, monitoring results; review of the OMP, procedures and records; and inspection of the source.
 - (5) Based on the results of the determination made under Condition D.1.2(c)(3) above, IDEM, OAM may require that the Permittee make changes to the OMP. Revisions may be required if IDEM, OAM finds that the plan:
 - (A) Does not address a malfunction or period of excess emissions that has occurred;
 - (B) Fails to provide for the operation of the tanks, air pollution control techniques (i.e., the fume suppressant, ~~the packed-bed scrubber~~), or process monitoring equipment during a malfunction in a manner consistent with good air pollution control practices; or
 - (C) Does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.

D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for tanks T27 and T23 ~~and the packed-bed scrubbers~~.

D.1.4 Operation and Maintenance Plan [40 CFR 63.342(f)(3)]

- (a) The Permittee shall prepare an Operation and Maintenance Plan (OMP) in accordance with 40 CFR 63.342(f)(3) to be implemented no later than the compliance date of tanks T27 and T23. The OMP shall specify the operation and maintenance criteria for the tanks, the fume suppressant, ~~the packed-bed scrubber~~, and monitoring equipment, and shall include the following elements:

- (1) Manufacturers recommendations for maintenance of the monitoring equipment used to measure surface tension;
 - (2) A standardized checklist to document the operation and maintenance criteria for the tanks, the fume suppressant, ~~the packed-bed scrubber~~, and monitoring equipment;
 - (3) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions or periods of excess emissions as indicated by monitoring data do not occur;
 - (4) A systematic procedure for identifying malfunctions and periods of excess emissions of the tanks, the fume suppressant, ~~the packed-bed scrubber~~, and monitoring equipment; and for implementing corrective actions to address such malfunctions;
- (b) The Permittee may use applicable standard operating procedures (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans such as the PMP required in Condition D.1.3, as the OMP, provided the alternative plans meet the above listed criteria in Condition D.1.4(a).
- (c) If the OMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction or period of excess emissions at the time the plan is initially developed, the Permittee shall revise the OMP within forty five (45) days after such an event occurs. The revised plan shall include procedures for operating and maintaining the tanks, the fume suppressant, ~~the packed-bed scrubber~~, and the monitoring equipment, during similar malfunction or excess emissions events, and a program for corrective action for such events.
- (d) If actions taken by the Permittee during periods of malfunction or period of excess emissions are inconsistent with the procedures specified in the OMP, the Permittee shall record the actions taken for that event and shall report by phone such actions within two (2) working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within seven (7) working days after the end of the event, unless the Permittee makes alternative reporting arrangements, in advance, with IDEM, OAM.
- (e) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAM for the life of the tanks or until the tanks are no longer subject to the provisions of 40 CFR 63.340. In addition, if the OMP is revised, the Permittee shall keep previous versions of the OMPs on record to be made available for inspection, upon request by IDEM, OAM for a period of five (5) years after each revision to the plan.

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.1.5 Performance Testing Requirements [326 IAC 2-1.1-11] [40 CFR 63.344] [40 CFR 63.343(b)(2)] [40 CFR 63.7]

-
- (a) Pursuant to 40 CFR 63.343(c)(5)(i), the Permittee has accepted 45 dynes/cm as the maximum surface tension value that corresponds to compliance with the applicable emission limitation, 0.01 mg/dscm (4.4 x 10⁻⁶ gr/dscf), in lieu of establishing the maximum surface tension during an initial performance test.
 - (b) The Permittee is not required to test tanks T27 and T23 by this permit. However, IDEM, OAM may require testing when necessary to determine if the tanks are in compliance. If testing is required by IDEM, OAM, compliance with the limit of 0.01 milligrams per dry standard cubic meter shall be determined by a performance test conducted in accordance with the provisions of 40 CFR 63.344 and Section C - Performance Testing.

- (c) Any change, modification, or reconstruction of the tanks, the fume suppressant, ~~the packed-bed scrubber~~ or monitoring equipment may require additional performance testing conducted in accordance with 40 CFR 63.344 and Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

D.1.6 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-6.1-5(a)(2)][40 CFR 63.343 (c)(5) & (7)]

- (a) Pursuant to 40 CFR 63.343(c)(5)(ii) and (iii), when using a wetting agent in the electroplating bath to comply with the limits specified in Condition D.1.2, the Permittee shall monitor the surface tension of the electroplating baths. Operation of tanks T27 and T23 at a surface tension greater than 45 dynes per centimeter shall constitute noncompliance with the standards.
- (1) The Permittee shall monitor the surface tension of the electroplating bath during tank operation according to the following schedule:
- (A) The surface tension shall be measured once every 4 hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B, appendix A of this part.
- (B) The time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every 4 hours of tank operation for the first 40 hours of tank operation after the compliance date. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every **day of tank operation, provided there are no more than 40 hours between measurements, of tank operation** on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed by this subpart is once every 40 hours of tank operation.
- (C) Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every 4 hours must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in paragraph (B) above. For example, if a Permittee had been monitoring a tank once every 40 hours and an exceedance occurs, subsequent monitoring would take place once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation, monitoring can occur once every 8 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 40 hours of tank operation.
- (2) Once a bath solution is drained from a tank and a new solution added, the original monitoring schedule of once every 4 hours must be resumed, with a decrease in monitoring frequency allowed following the procedures in paragraphs (B) and (C) above.
- (b) Tank operation or operating time is defined as that time when a part is in the tank. When there is no part in a tank for fifteen (15) or more minutes, the tank will not be considered to be in operation, and that time will not be considered operating time. Likewise, if the time between removing one part from the tank and placing another part into the tank is less than fifteen (15) minutes, the tank will be considered to be in operation and that time between plating the two parts will be considered part of the operating time. **Amp meters are an acceptable method of measuring operating time provided the amp meter only records time when the rectifier is on and there is a part in the tank.**

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

D.1.7 Record Keeping Requirements [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.346]

The Permittee shall maintain records to document compliance with Conditions D.1.2 and D.1.4 using the forms provided with this permit. These records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit and include a minimum of the following:

- (a) Inspection records for the fume suppressant, ~~the packed-bed scrubber system~~ and monitoring equipment to document that the inspection and maintenance required by Conditions D.1.5 and D.1.6 have taken place. The record can take the form of a checklist and should identify the following:
 - (1) The device inspected;
 - (2) The date of inspection;
 - (3) A brief description of the working condition of the device during the inspection, including any deficiencies found; and
 - (4) Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.
- (b) Records of all maintenance performed on tanks T27 and T23, ~~the packed-bed scrubber~~ and monitoring equipment.
- (c) Records of the occurrence, duration, and cause (if known) of each malfunction of tanks T27 and T23, the fume suppressant, ~~the packed-bed scrubber~~, and monitoring equipment.
- (d) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of tanks T27 and T23, the fume suppressant, ~~the packed-bed scrubber~~, and monitoring equipment as indicated by monitoring data collected in accordance with this condition.
- (e) Records of actions taken during periods of malfunction or excess emissions when such actions are inconsistent with the OMP.
- (f) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.
- (g) Test reports documenting results of all performance tests.
- (h) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.
- (i) Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.
- (j) The total process operating time, as defined in Condition D.1.6(b), of each tank, during the reporting period.
- (k) Records of the date and time that fume suppressants were added to the electroplating bath, and the amount and type of fume suppressants added.
- (l) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Condition D.1.8.

D.1.8 Reporting Requirements [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.344(a)] [40 CFR 63.345] [40 CFR 63.347]

The notifications and reports required in this section shall be submitted to IDEM, OAM using the address specified in Section C - General Reporting Requirements.

(a) Notifications:

(1) Initial Notifications

The Permittee shall notify IDEM, OAM in writing that the source is subject to 40 CFR Part 63, Subpart N. The initial notification for tanks T27 and T23 has been submitted to IDEM, OAM.

(2) A Notification of Compliance Status (NCS) is required each time that the facility becomes subject to the requirements of 40 CFR Part 63 Subpart N.

(A) The NCS shall be submitted to IDEM, OAM, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).

(B) The NCS for tanks T27 and T23 has been submitted to IDEM, OAM.

(3) Notification of Construction or Reconstruction

Pursuant to 40 CFR 63.345(b)(1), the Permittee may not construct a new tank subject to 40 CFR 63, Subpart N (including non-affected tanks defined in 40 CFR 63.344(e)) without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAM. In addition, the Permittee may not change, modify, or reconstruct tanks T27 and T23 without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAM.

(A) The NCR shall contain the information identified in 40 CFR 63.345(b) (2) and (3).

(B) A change, modification, or reconstruction of this facility includes any change in the air pollution control techniques, the addition of add-on control devices, or the construction of duct work for the purpose of controlling both existing tanks and non-affected facilities by a common control technique or device.

(C) A complete application to construct new chromium electroplating or chromium anodizing tanks serves as this notification. Likewise, the complete application to modify or reconstruct tanks T27 and T23 serves as this notification.

(D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAM before construction, modification, or reconstruction may commence.

(b) Performance Test Results

The Permittee shall document results from any future performance tests in a complete test report that contains the information required in 40 CFR 344(a).

The Permittee shall submit reports of performance test results as part of the Notification of Compliance Status, described in 40 CFR 63.347(e), no later than forty-five (45) days following the completion of the performance test.

- (c) Ongoing Compliance Status Report
The Permittee shall prepare summary reports to document the ongoing compliance status of tanks T27 and T23 using the Ongoing Compliance Status Report form provided with this permit. This report shall contain the information specified in 40 CFR 63.347(g)(3).

Because tanks T27 and T23 are located at site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status Report shall be retained on site and made available to IDEM, OAM upon request.

- (1) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in paragraphs (c)(2).
- (A) The first report shall cover the period from the start-up date of the emissions units to December 31 of the year in which the emissions units begin operation.
- (B) Following the first year of reporting, the report shall be completed on a calendar year basis with the reporting period covering from January 1 to December 31.
- (2) If either of the following conditions are met, semiannual reports shall be prepared and submitted to IDEM, OAM:
- (A) The total duration of excess emissions (as indicated by the monitoring data collected by the Permittee in accordance with 40 CFR 63.343(c)) is one percent (1%) or greater of the total operating time as defined in Condition D.1.6(b) for the reporting period; or
- (B) The total duration of malfunctions of the ~~add-on air pollution control device and~~ monitoring equipment is five percent (5%) or greater of the total operating time as defined in Condition D.1.6(b).

Once the Permittee reports an exceedance as defined above, Ongoing Compliance Status Reports shall be submitted semiannually until a request to reduce reporting frequency is approved.

- (3) IDEM, OAM may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the source.

SECTION D.2

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (c) One (1) nickel electroplating bath, identified as T23, equipped with a wet scrubber and exhausting at stack 1038Ni.
- (d) One (1) nickel electroplating bath, identified as T18, equipped with a wet scrubber and exhausting at stack 281Ni.

- (e) One (1) copper plating tank, identified as 1038, equipped with a wet scrubber and exhausting at stack 1038Cu.
- (f) One (1) cyanide plating tank, identified as T18, equipped with a wet scrubber and exhausting at stack 574.
- (g) One (1) formaldehyde electroless plating tank, identified as EC Tank T12/T13, equipped with a wet scrubber and exhausting at stack 489.
- (h) One (1) Brite Dip tank, identified as ~~Process Map~~ T14, equipped with a wet scrubber and exhausting at stack 1715.
- (i) Two (2) rack strip lines, identified as 255R and 255P, using ~~sulfuric acid and~~ nitric acid **and sulfuric acid**, respectively, and equipped with wet scrubbers and exhausting at stacks 255R and 255P, respectively. **A used acid tank and an acid cleaner tank exhaust to the same scrubber as strip line 255R and stack 255R.**
- (j) Buffing operations, equipped with three (3) air washers, identified as 2125, 2490 and 3011, and exhausting at stacks 2126, 2491 and 3011, respectively.
- (k) Brazing operations, identified as 10200, exhausting at stacks 1183, 1873, 1874, 1212 and 1105, capacity: 10.3 pounds per hour of solder, 1,800 pounds per hour of brass or copper parts, and 5.72 million British thermal units per hour.
- (l) One (1) cure oven, identified as 569, fired by natural gas and exhausting at stacks 569 North and 569 South, capacity: 3.6 million British thermal units per hour.
- (m) One (1) natural gas fired fluidized bed burn-off oven, rated at 0.99 million British thermal units per hour (mmBtu/hr), with a maximum capacity of 301 pounds per hour of parts and 1.56 pounds per hour of sand, using a cyclone for particulate matter control, and exhausting at one (1) stack identified as 2918.
- (u) **One (1) rack strip line, identified as 1038, consisting of two (2) rack strip tanks, four (4) rinse tanks and one (1) hot rinse tank, equipped with a wet scrubber and exhausting to stack 3230, maximum capacity: 2.05 pounds of alkaline cleaner per hour, 0.09 pounds of aqua ammonia per hour, 0.06 pounds of Acetic Acid per hour, and 0.49 pounds of Nitric Acid per hour.**
- (w) **One (1) WWT sludge dryer, identified as 2209, equipped with a wet scrubber.**
- (x) **One (1) maintenance welding booth, identified as Booth 11-1, exhausting to stack 11-1, capacity: 0.2 pound of Oxyacetylene welding wire per hour.**
- (y) **One (1) tool room welding booth, exhausting to stack 1799, capacity: 0.2 pound of Oxyacetylene welding wire per hour.**
- (z) **Two (2) lab hoods.**
- (aa) **One (1) inductively coupled plasma (ICP) unit.**

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

- (a) The particulate matter (PM) from the buffing operations shall be limited to less than ~~3.38~~ **15.8** pounds per hour when operating ~~at~~ **at** a process weight rate of ~~4,500~~ **15,000** pounds per hour.

- (b) The particulate matter (PM) from the fluidized bed burn off oven shall be limited to less than 1.15 pounds per hour, when operating at a process weight rate of 303 pounds per hour.

These limits were computed using the following equation:

~~Interpolation and extrapolation~~ of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

- (c) The particulate matter (PM) from the brazing operations shall be limited by the following:

~~Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:-~~

~~The limitations were calculated using the following equation:-~~

~~Interpolation and extrapolation~~ of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

- (d) **The particulate matter (PM) from the one (1) maintenance welding booth and the one (1) tool room welding booth shall each be limited to less than 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour, each. This limit is calculated using the following equation:**

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

- (e) **The particulate matter (PM) from the WWT sludge dryer, strip lines, two (2) lab hoods, and one (1) ICP unit shall be limited by the following:**

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3]

The requirement from the Registration issued April 26, 1982 and the Registration issued July 5, 1984 that emissions shall be at a level acceptable to 325 IAC 8-3, is not applicable because the solvent recovery facility and degreaser registered by those approvals are no longer in existence at the source.

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.2.3 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test these emissions units by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions units are in compliance. If testing is required by IDEM, compliance with the PM limits specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.2.4 Particulate Matter (PM)

- (a) Pursuant to CP031-9717-00007, issued on May 28, 1998, the cyclone for PM control shall be in operation at all times when the fluidized bed burn off oven is in operation.
- (b) **The scrubbers for the strip lines and the WWT sludge dryer shall be in operation at all times the strip lines and WWT sludge dryer are in operation.**

SECTION D.3

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (n) One (1) powder spray booth, identified as 1421, equipped with a baghouse and exhausting to stack 1421, capacity: 16 pounds of powder per hour and 1,000 pounds per hour of raw materials.
- (v) **One (1) powder spray booth, identified as 1599, constructed in April 1991, equipped with a baghouse and exhausting through stack 1599, capacity: 0.16 pounds of powder per hour and 34 pounds of parts coated per hour.**

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

- (a) The particulate matter (PM) from the powder spray booth, **identified as 1421**, shall be limited to 2.58 pounds per hour when operating at a process weight rate of 1,000 pounds per hour. ~~This limitation was determined by the following:~~
- (b) **The particulate matter (PM) from the powder spray booth, identified as 1599, shall be limited to no more than 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour.**

These limitations were determined by the following:

~~Interpolation and extrapolation~~ of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.3.2 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test ~~this emissions unit~~ **these emissions units** by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions units **are** ~~is~~ in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.3.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.3.3 Particulate Matter (PM)

The baghouse for PM control shall be in operation at all times when the powder spray booth, **identified as 1421**, is in operation.

SECTION D.7

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (t) One (1) decorative chromium electroplating tank, identified as T21, using a hexavalent chromium bath, ~~equipped with a packed-bed scrubber~~, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 253Cr. **This tank is also equipped with a composite mesh pad scrubber that is not used for compliance.**

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.7.1 General Provisions Relating to HAPs [326 IAC 20-1-1] [40 CFR Part 63, Subpart A]

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart N.

D.7.2 Chromium Electroplating NESHAP [326 IAC 20-8-1] [40 CFR 63.342(c)&(f)] [40 CFR 63.343(a) (1)&(2)]

Tank T21 is subject to 40 CFR Part 63, Subpart N, which is incorporated by reference as 326 IAC 20-8-1. A copy of this rule is attached.

- (a) The emission limitations in this condition apply only during tank operation, and also apply during periods of startup and shutdown as these are routine occurrences for tanks subject to 326 IAC 20-8-1. The emission limitations do not apply during periods of malfunction, but the work practice standards that address operation and maintenance required by this section must be followed during malfunctions and periods of excess emissions.
- (b) During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from each tank by using a chemical fume suppressant containing a wetting agent and not allowing the surface tension of the electroplating baths contained within the tank to exceed forty-five (45) dynes per centimeter (dynes/cm) (3.1×10^{-3} pound-force per foot [lbf/ft]) at any time during operation of the tank.
- (c) The following work practice standards for the tank are also applicable:

- (1) At all times, including periods of startup, shutdown, malfunction and excess emissions, the Permittee shall operate and maintain the tank, the fume suppressant, ~~the packed-bed scrubber~~, and monitoring equipment in a manner consistent with good air pollution control practices, consistent with the Operation and Maintenance Plan (OMP) required by Condition D.7.4.
- (2) Malfunctions and excess emissions shall be corrected as soon as practicable after their occurrence in accordance with the OMP required by Condition D.7.4.
- (3) These operation and maintenance requirements are enforceable independent of emissions limitations or other requirements in this section.
- (4) Determination of whether acceptable operation and maintenance procedures are being used will be based on the information available to IDEM, OAM, which may include, but is not limited to, monitoring results; review of the OMP, procedures and records; and inspection of the source.
- (5) Based on the results of the determination made under Condition D.7.2(c)(3) above, IDEM, OAM may require that the Permittee make changes to the OMP. Revisions may be required if IDEM, OAM finds that the plan:
 - (A) Does not address a malfunction or period of excess emissions that has occurred;
 - (B) Fails to provide for the operation of the tank, air pollution control techniques (i.e., the fume suppressant, ~~the packed-bed scrubber~~), or process monitoring equipment during a malfunction in a manner consistent with good air pollution control practices; or
 - (C) Does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.

D.7.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for tank T21 ~~and the packed-bed scrubber~~.

D.7.4 Operation and Maintenance Plan [40 CFR 63.342(f)(3)]

- (a) The Permittee shall prepare an Operation and Maintenance Plan (OMP), in accordance with 40 CFR 63.342(f)(3) to be implemented no later than the compliance date of tank T21. The OMP shall specify the operation and maintenance criteria for the tank, the fume suppressant, ~~the packed-bed scrubber~~, and monitoring equipment, and shall include the following elements:
 - (1) Manufacturers recommendations for maintenance of the monitoring equipment used to measure surface tension;
 - (2) A standardized checklist to document the operation and maintenance criteria for the tank, the fume suppressant, ~~the packed-bed scrubber~~, and monitoring equipment;
 - (3) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions or periods of excess emissions as indicated by monitoring data do not occur;

- (4) A systematic procedure for identifying malfunctions and periods of excess emissions of the tank, the fume suppressant, ~~the packed-bed scrubber~~, and monitoring equipment; and for implementing corrective actions to address such malfunctions;
- (b) The Permittee may use applicable standard operating procedures (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans such as the PMP required in Condition D.7.3, as the OMP, provided the alternative plans meet the above listed criteria in Condition D.7.4(a).
- (c) If the OMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction or period of excess emissions at the time the plan is initially developed, the Permittee shall revise the OMP within forty five (45) days after such an event occurs. The revised plan shall include procedures for operating and maintaining the tank, the fume suppressant, ~~the packed-bed scrubber~~, and the monitoring equipment, during similar malfunction or excess emissions events, and a program for corrective action for such events.
- (d) If actions taken by the Permittee during periods of malfunction or period of excess emissions are inconsistent with the procedures specified in the OMP, the Permittee shall record the actions taken for that event and shall report by phone such actions within two (2) working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within seven (7) working days after the end of the event, unless the Permittee makes alternative reporting arrangements, in advance, with IDEM, OAM.
- (e) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAM for the life of the tank or until the tank is no longer subject to the provisions of 40 CFR 63.340. In addition, if the OMP is revised, the Permittee shall keep previous versions of the OMPs on record to be made available for inspection, upon request by IDEM, OAM for a period of five (5) years after each revision to the plan.

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.7.5 Performance Testing Requirements [326 IAC 2-1.1-11] [40 CFR 63.344] [40 CFR 63.343(b)(2)] [40 CFR 63.7]

-
- (a) Pursuant to 40 CFR 63.343(c)(5)(i), the Permittee has accepted 45 dynes/cm as the maximum surface tension value that corresponds to compliance with the applicable emission limitation, 0.01 mg/dscm (4.4×10^{-6} gr/dscf), in lieu of establishing the maximum surface tension during an initial performance test.
 - (b) The Permittee is not required to test tank T21 by this permit. However, IDEM, OAM may require testing when necessary to determine if the tank is in compliance. If testing is required by IDEM, OAM, compliance with the limit of 0.01 milligrams per dry standard cubic meter shall be determined by a performance test conducted in accordance with the provisions of 40 CFR 63.344 and Section C - Performance Testing.
 - (c) Any change, modification, or reconstruction of tank T21, the fume suppressant, ~~the packed-bed scrubber~~ or monitoring equipment may require additional performance testing conducted in accordance with 40 CFR 63.344 and Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.7.6 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.343 (c)(5) & (7)]

- (a) Pursuant to 40 CFR 63.343(c)(5)(ii) and (iii), when using a wetting agent in the electroplating bath to comply with the limits specified in Condition D.7.2, the Permittee shall monitor the surface tension of the electroplating bath. Operation of tank T21 at a surface tension greater than 45 dynes per centimeter shall constitute noncompliance with the standards.
- (1) The Permittee shall monitor the surface tension of the electroplating bath during tank operation according to the following schedule:
 - (A) The surface tension shall be measured once every 4 hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B, appendix A of this part.
 - (B) The time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every 4 hours of tank operation for the first 40 hours of tank operation after the compliance date. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every **day of tank operation, provided there are no more than 40 hours between measurements,** ~~of tank operation~~ on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed by this subpart is once every 40 hours of tank operation.
 - (C) Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every 4 hours must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in paragraph (B) above. For example, if a Permittee had been monitoring a tank once every 40 hours and an exceedance occurs, subsequent monitoring would take place once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation, monitoring can occur once every 8 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 40 hours of tank operation.
- (2) Once a bath solution is drained from a tank and a new solution added, the original monitoring schedule of once every 4 hours must be resumed, with a decrease in monitoring frequency allowed following the procedures in paragraphs (B) and (C) above.
- (b) Tank operation or operating time is defined as that time when a part is in the tank. When there is no part in a tank for fifteen (15) or more minutes, the tank will not be considered to be in operation, and that time will not be considered operating time. Likewise, if the time between removing one part from the tank and placing another part into the tank is less than fifteen (15) minutes, the tank will be considered to be in operation and that time between plating the two parts will be considered part of the operating time. **Amp meters are an acceptable method of measuring operating time provided the amp meter only records time when the rectifier is on and there is a part in the tank.**

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.7.7 Record Keeping Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.346]

The Permittee shall maintain records to document compliance with Conditions D.7.2 and D.7.4 using the forms provided with this permit. These records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit and include a minimum of the following:

- (a) Inspection records for the fume suppressant, ~~the packed-bed scrubber system~~ and monitoring equipment to document that the inspection and maintenance required by Conditions D.7.5 and D.7.6 have taken place. The record can take the form of a checklist and should identify the following:
 - (1) The device inspected;
 - (2) The date of inspection;
 - (3) A brief description of the working condition of the device during the inspection, including any deficiencies found; and
 - (4) Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.
- (b) Records of all maintenance performed on tank T21, the fume suppressant, ~~the packed-bed scrubber~~ and monitoring equipment.
- (c) Records of the occurrence, duration, and cause (if known) of each malfunction of tank T21, the fume suppressant, ~~the packed-bed scrubber~~, monitoring equipment.
- (d) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of tank T21, the fume suppressant, ~~the packed-bed scrubber~~, and monitoring equipment as indicated by monitoring data collected in accordance with this condition.
- (e) Records of actions taken during periods of malfunction or excess emissions when such actions are inconsistent with the OMP.
- (f) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.
- (g) Test reports documenting results of all performance tests.
- (h) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.
- (i) Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.
- (j) The total process operating time, as defined in Condition D.7.6(b), of the tank, during the reporting period.
- (k) Records of the date and time that fume suppressants were added to the electroplating bath, and the amount and type of fume suppressants added.
- (l) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Condition D.7.8.

D.7.8 ~~Record-Keeping~~ Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.344(a)] [40 CFR 63.345] [40 CFR 63.347]

The notifications and reports required in this section shall be submitted to IDEM, OAM using the address specified in Section C - General Reporting Requirements.

(a) Notifications:

(1) Initial Notifications

The Permittee shall submit an Initial Notification for tank T21 as follows:

- (A) A notification of the actual date when construction of tank T21 commenced shall be submitted no later than thirty (30) days after such date.
- (B) A notification of the actual date of startup of tank T21 shall be submitted within thirty (30) days after such date.

(2) A Notification of Compliance Status (NCS) is required each time that the facility becomes subject to the requirements of 40 CFR Part 63 Subpart N.

- (A) The NCS shall be submitted to IDEM, OAM, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).
- (B) The NCS for tank T21 shall be submitted to IDEM, OAM no later than 30 days after the startup date.

(3) Notification of Construction or Reconstruction

Pursuant to 40 CFR 63.345(b)(1), the Permittee may not construct a new tank subject to 40 CFR 63, Subpart N (including non-affected tanks defined in 40 CFR 63.344(e)) without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAM. In addition, the Permittee may not change, modify, or reconstruct tank T21 without submitting an NCR to IDEM, OAM.

- (A) The NCR shall contain the information identified in 40 CFR 63.345(b) (2) and (3).
- (B) A change, modification, or reconstruction of this facility includes any change in the air pollution control techniques, the addition of add-on control devices, or the construction of duct work for the purpose of controlling both existing tanks and non-affected facilities by a common control technique or device.
- (C) A complete application to construct new chromium electroplating or chromium anodizing tanks serves as this notification. Likewise, the complete application to modify or reconstruct tank T21 serves as this notification.
- (D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAM before construction, modification, or reconstruction may commence.

(b) Performance Test Results

The Permittee shall document results from the initial performance test and any future performance tests in a complete test report that contains the information required in 40 CFR 344(a).

The Permittee shall submit reports of performance test results as part of the Notification of Compliance Status, described in 40 CFR 63.347(e), no later than forty-five (45) days following the completion of the performance test.

(c) Ongoing Compliance Status Report

The Permittee shall prepare summary reports to document the ongoing compliance status of tank T21 using the Ongoing Compliance Status Report form provided with this permit. This report shall contain the information specified in 40 CFR 63.347(g)(3).

Because tank T21 is located at site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status Report shall be retained on site and made available to IDEM, OAM upon request.

- (1) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in paragraphs (c)(2).
 - (A) The first report shall cover the period from the start-up date of the emissions units to December 31 of the year in which the emissions units begin operation.
 - (B) Following the first year of reporting, the report shall be completed on a calendar year basis with the reporting period covering from January 1 to December 31.
- (2) If either of the following conditions are met, semiannual reports shall be prepared and submitted to IDEM, OAM:
 - (A) The total duration of excess emissions (as indicated by the monitoring data collected by the Permittee in accordance with 40 CFR 63.343(c)) is one percent (1%) or greater of the total operating time as defined in Condition D.7.6(b) for the reporting period; or
 - (B) The total duration of malfunctions of the ~~add-on air pollution control device~~ and monitoring equipment is five percent (5%) or greater of the total operating time as defined in Condition D.7.6(b).

Once the Permittee reports an exceedance as defined above, Ongoing Compliance Status Reports shall be submitted semiannually until a request to reduce reporting frequency is approved.

- (3) IDEM, OAM may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the source.

Conclusion

This proposed revision shall be subject to the conditions of the attached proposed MSOP Significant Permit Revision No. 031-12463-00007.

**Appendix A: Emission Calculations
Process Operations**

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Rev: 031-12463
MSOP: 031-11706
Plt ID: 031-00007
Reviewer: CarrieAnn Ortolani
Date: October 12, 2000

Rack Strip Line

Material	Normal Usage (lbs/hr)	Maximum Usage (lbs/hr)	Maximum Usage (tons/yr)	Control Efficiency (%)	PM Potential to Emit after Controls (tons/yr)
T34					
Alkaline Cleaner	1.09	2.05	8.98	95.0%	0.449
T37					
Aqua Ammonia	0.05	0.09	0.41	95.0%	0.021
Acetic Acid	0.03	0.06	0.25	95.0%	0.012
Nitric Acid*	0.26	0.49	2.15	95.0%	0.108

* NOx emissions are assumed to be equal to Nitric Acid usage. Thus, it is a conservative estimate of emissions.

Emission Unit	Stack	Maximum Powder Use (lbs/hr)	Conservative Transfer Efficiency (%)	Potential PM Emissions (lbs/hr)	Potential PM Emissions (tons/yr)	Control Efficiency	PM Potential to Emit after Controls (lbs/hr)	PM Potential to Emit after Controls (tons/yr)
Powder Spray Booth	1599	0.16	65.0%	0.056	0.245	99.9%	0.0001	0.0002

Emission Unit	Potential PM Emissions (lbs/hr)	Potential PM Emissions (tons/yr)	Control Efficiency	Controlled PM Emissions (lbs/hr)	Controlled PM Emissions (tons/yr)
WWT Sludge Dryer	0.194	0.850	98.0%	0.004	0.017

Methodology

Powder Spray Booth

Uncontrolled Emissions (lbs/hr) = Powder usage rate * (1- transfer efficiency)

Controlled Emissions (lbs/hr) = Uncontrolled Emissions (lbs/hr) * (1 - Control Efficiency)

Emissions (tons/yr) = Emissions (lbs/hr) * 8760 hrs/yr / 2000 lbs/ton

Rack Strip Line

This calculation is an overestimate of emissions using the potential material input to the tanks. Using the overestimate does not change applicability of any rules.

WWT Sludge Dryer

Emissions based on stack test data of a similar unit.

Appendix A: Welding and Thermal Cutting

Page 2 of 2 TSD App A

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Rev: 031-12463
MSOP: 031-11706
Plt ID: 031-00007
Reviewer: CarrieAnn Ortolani
Date: October 12, 2000

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS * (lb pollutant / lb electrode)				EMISSIONS (lb/hr)				TOTAL HAPS (lb/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
WELDING												
Submerged Arc	0	0		0.036	0.00003		0.00001	0.000	0	0.000	0	0.000
Metal Inert Gas (MIG)(ER5154)	0	0		0.0241				0.000	0	0.000	0	0.000
Stick (E7018 electrode)	0	0		0.0211				0.000	0	0.000	0	0.000
Tungsten Inert Gas (TIG)(carbon steel)	0	0		0.0055				0.000	0	0.000	0	0.000
Oxyacetylene(carbon steel)	2	0.2		0.0055				0.002	0	0.000	0	0.000
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)				EMISSIONS (lbs/hr)				TOTAL HAPS (lb/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxyacetylene	0	0	0	0.1622	0.0005	0.0001	0.0003	0.000	0.000	0.000	0.000	0.000
Oxymethane	0	0	0	0.0815	0.0002		0.0002	0.000	0.000	0.000	0.000	0.000
Plasma	0	0	0					0.000	0.000	0.000	0.000	0.000
EMISSION TOTALS								PM = PM10	Mn	Ni	Cr	Total HAPs
Potential Emissions lbs/hr								0.002	0.00	0.00	0.00	0.00
Potential Emissions lbs/day								0.053	0.00	0.00	0.00	0.00
Potential Emissions tons/year								0.010	0.000	0.000	0.000	0.000

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.

Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994).

Welding and other flame cutting emission factors are from an internal training session document.

See AP-42, Chapter 12.19 for additional emission factors for welding.